Final
EXPLANATION OF SIGNIFICANT DIFFERENCES
Site 11
Transformer Storage Area
Former MCAS El Toro, California

May 21, 2003

1.0 Introduction

This document is an Explanation of Significant Differences (ESD) to the Record of Decision (ROD) (DON 1999a) for Installation Restoration Program (IRP) Site 11-Transformer Storage Area, Former Marine Corps Air Station (MCAS) El Toro, Irvine, California. The Site 11 ROD was issued by the Department of Navy (DON) on September 17, 1999 pursuant to DON's authority as the lead federal agency for Comprehensive Environmental Response Compensation and Liability Act (CERCLA) remedy selection at former MCAS El Toro, pursuant to Sections 104 and 120 of CERCLA, Executive Order 12580 and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (40 Code of Federal Regulations [CFR] part 300).

The purpose of this ESD is to present information that describes and justifies modifications to actions required at Site 11 as specified in the ROD. This ESD addresses the following:

- Changes to the risk based cleanup goals presented in the ROD calculated based on the results of the risk reevaluation (Earth Tech 2003) that used updated toxicity criteria and slope factors, and incorporated the results of additional soil sampling conducted in May 1999 after Phase I and Phase II remedial investigations (RIs)

- The risk reevaluation (Earth Tech 2003) showed lower risks, however, the risks were still above acceptable levels

The preparation and public notice of this ESD is pursuant to Section 117(c) of the CERCLA of 1980, as amended by the Superfund Amendment and Reauthorization Act of 1986 (SARA), and pursuant to 40 CFR Section 300.435 (c) (2)(i).

This ESD includes a brief summary of the remedy selected in the ROD, a description of the proposed change, and a description of why the DON is making this change to the selected remedy. This ESD was prepared according to United States Environmental Protection Agency (EPA) guidance document, *A Guide to Preparing Superfund Proposed Plans, Records of Decision and Other Remedy Selection Decision Documents* (EPA, 1999).

The lead regulatory agency for this ESD is the EPA. In addition to the EPA, the California Regional Water quality Control Board (RWQCB) and the California Department of Toxic Substances Control (DTSC) oversee the site cleanup at Former MCAS El Toro and have commented on this ESD. All comments and DON responses are presented in Appendix A.

2.0 Summary of Site History, Contamination Problems, and Selected Remedy

Former MCAS El Toro lies in a semi-urban agricultural area in southern California, approximately 8 miles southeast of the city of Santa Ana and 12 miles northeast of the city of Laguna Beach (Figure 1-1). Former MCAS El Toro covers approximately 4,738 acres. Land use around the Former MCAS includes commercial, light industrial, and residential. Former MCAS El Toro closed on 2 July 1999, in accordance with the Base Realignment and Closure Act.

Site 11 is located on the northeast side of Building 369 in the southwestern quadrant of Former MCAS El Toro (Figure 1-2). Site 11 was used as a maintenance and storage yard for transformers. Most of the storage yard is relatively flat and covered with gravel, concrete, or asphalt pavement. A wide, shallow depression is located in the center of the yard. Staining was evident in the depression during the Phase I Remedial Investigation (RI) (Jacobs Engineering Group, Inc. [JEG] 1993). The site is currently not in use. The site does not contain any significant ecological habitat nor is it adjacent to the exposed portions of any of the major drainages that direct surface runoff away from the station.

The site is fenced and consists of three units: Unit 1, a concrete pad (approximately 30 by 30 feet) and a 3-foot wide strip of ground adjacent to it; Unit 2, an asphalt-lined drainage ditch parallel to the northeast side of Building 369 and extending from the loading dock at the southern boundary to N Street at the northern boundary; and Unit 3, the remainder of the fenced, unpaved storage yard behind Building 369.

Currently, the selected remedy for Site 11, noted as Alternative 3 in the ROD, consists of excavation with off-station disposal of soil, within Units 1 and 2, with polychlorinated biphenyls (PCBs) above the target cleanup goals.

3.0 Basis for the Document

This section presents information that describes and justifies modifications to actions required in the Site 11 ROD. An ESD is the appropriate means to record these modifications, because they involve changes to the remedy that do not fundamentally alter the overall cleanup approach. These changes, described below, do not appreciably change the scope, performance, or cost of the remedy.

During the Phase I RI, 16 soil samples were collected from six borings at Units 1 and 2 (BNI 1997). During Phase II RI, 12 soil samples were collected from three borings at Unit 1, and 16 soil samples were collected from four locations at Unit 2 (BNI 1997). Analytes reported in shallow soil at Units 1 and 2 during these investigations were PCBs and pesticides. The analytical results indicated that PCBs and pesticides are present primarily between 0 and 4.5 feet below ground surface (bgs).

A human-health risk assessment (HHRA) was performed for IRP Site 11 as a part of Phase II RI for the operable unit (OU)-3A sites (Sites 8, 11, and 12) within the Former MCAS El Toro (BNI 1997). Based on the HHRA results, Units 1 and 2 within Site 11 were

recommended for further action (FA). A *Draft Record of Decision* (DON 1999b) based on the conclusions and recommendations of the RI/Feasibility Study (FS) for the OU-3A sites (Sites 8, 11, and 12) was submitted to the Base Realignment and Closure (BRAC) Cleanup Team (BCT) in July 1999. Subsequently, a separate *Draft Final ROD* was issued and signed for Site 11 in September 1999 (DON 1999a).

As a part of post-ROD activities, a detailed review of the HHRA conducted as a part of Phase II RI was performed. This review showed that several exposure factors and toxicity indices for PCBs used to calculate the risk are not current based on a comparison with those used by EPA Region 9 in the development of its Preliminary Remediation Goals (PRGs). Table 1-1 presents a comparison of risk assessment parameters used in Phase II RI risk assessment with the EPA Region 9 default parameters. It was also determined that additional data collected during May 1999 and subsequent to the RI should be incorporated into the risk assessment. The previous HHRA was based on exposure to soils at the sites; exposure to groundwater was not included because the RI indicated that site-specific contamination is present only in the shallow soil interval.

A Risk Reevaluation for Site 11 was conducted in August of 2001 to update the previous HHRA. The original HHRA was based primarily on 1996 toxicity criteria and slope factors. The risk reevaluation used updated toxicity criteria and slope factors. This risk reevaluation was conducted in accordance with a letter submitted to the BCT by the Navy in December 2000. The approach was presented for Site 11 in an attachment to the letter, titled, *Memorandum, Proposed Reevaluation of Risk, Site 11* (Earth Tech 2000) and discussed with the BCT members. During a teleconference call in December 2000, BCT members concurred with the approach for reevaluating risks at Site 11 along with two other sites (Sites 8 and 12).

3.1 Human Health Risk Assessment Summary

The Risk Reevaluation was performed in accordance with the methodology approved by the BCT. The industrial worker exposure scenario was considered to be limited to contaminants in surface soils (0 to 2 feet below ground surface [bgs]). Exposure of a resident was considered to be limited to contaminants in the shallow soils (from 0 to 10 feet bgs). Exposure pathways that were found to be complete for chemicals in surface and shallow soils were ingestion of soil, inhalation of vapors and dust, and direct contact with the skin.

The updated cumulative cancer risk and noncancer hazard indices (HI) were calculated for residential and industrial receptors associated with potential exposure to all chemicals of potential concern (COPC) that were identified in the RI risk assessment (BNI 1997a).

The results of the risk reevaluation for the residential and industrial receptor groups are summarized in Table 1-2. The excess lifetime cancer risk and the HI that were presented in the *Draft Final ROD* (DON 1999a) are also included in these tables for comparison purposes.

The recalculated risks for the various units at Site 11 were in general lower than risk estimates presented in the RI report except for the noncancer risk for residential scenario in

case of Unit 2. The noncancer risk for the residential scenario at Unit 2 increased during the risk reevaluation from 0.3, as presented in the Phase II RI, to 1.1. This was due to an increase in the exposure point concentration (EPC) for Aroclor 1260 (main noncancer risk driver [99%]) from 0.179 to 1.2 mg/kg. This increase in the EPC was due to incorporation of additional data (May 1999 soil sampling data) in the risk reevaluation.

Risk management considerations were reevaluated based on the results of risk reevaluation and following discussions with regulatory agencies, a decision to still implement remedial action at Units 1 and 2 was made (Earth Tech 2003).

Consistent with the methodology used in the FS (BNI 1997b) and documented in the ROD for Site 11, risk based concentrations (RBCs) were calculated for all the chemicals of concern identified in the ROD for Units 1 and 2 (see Table 7-1 of the Site 11 ROD [DON 1999a]). These RBCs are presented in Table 1-3. The RBCs achieve a 10^{-6} risk for each constituent.

4.0 Description of Significant Differences

This ESD presents the updated target cleanup goals. The differences between the original and the revised cleanup goals for Units 1 and 2 are presented in Table 1-3. A side-by-side comparison of the original remedy presented in the ROD and the proposed remedy in this ESD is presented in Table 1-4.

The overall scope with respect to cost and performance of this remedial action will remain the same. The remedial action objectives will be met and the remedy will still comply with the ARARs identified and documented in the ROD. The changed remedy achieves the same level of protection to human health (i.e. cancer risk of 10^{-6}, and noncancer risk of 1) as the selected remedy documented in the ROD. The significant difference in the remedy is that the attainment of cleanup will be based on the updated RBCs calculated in the risk reevaluation. In addition, following the removal of contaminated soil, confirmation sampling results will be used to calculate the cumulative residual risk for each unit using the updated slope factors and toxicity criteria.

5.0 Support Agency Comments

Responses addressing EPA comments dated April 8, 2003, California Regional Water Quality Control Board (RWQCB) comments dated April 2, 2003, and DTSC comments dated April 7, 2003, on the Draft ESD, are presented in Appendix A.

6.0 Statutory Determinations

The remedy as changed pursuant to this ESD complies with CERCLA and the NCP, remains protective of human health and the environment, and complies with applicable or relevant and appropriate Federal and State requirements identified in the ROD.

7.0 Public Participation

This ESD will become part of the administrative record for the site (NCP, 40 CFR Section 300.825 (a)(2)) and can be accessed by contacting Diane Silva, Naval Facilities Engineering Command, Southwest Division, at (619)532-3676 or by email at silvadc@efdsw.navfac.navy.mil.

Following regulatory agency review, a notification specifying that the ESD is available for public review along with a date for public meeting will be placed in a major local newspaper. The ESD will be available for pubic review at the following information repository:

Heritage Park Regional Library
14361 Yale Avenue
Irvine, CA 92604
Hours: Monday – Thursday: 10:00 A.M. to 9:00 P.M.
Friday and Saturday: 10:00 A.M. to 5:00 P.M.
Sunday: Noon to 5:00 P.M.

F. A. Piszkin

Date: 23 MAY 2003

Mr. F. Andrew Piszkin
Base Realignment and Closure Environmental Coordinator
Former Marine Corps Air Station El Toro

Date: May 30 2003

Ms. Deborah Jordan, Chief
Federal Facilities Cleanup Branch
United States Environmental Protection Agency, Region 9

Date: _____

Mr. John E. Scandura, Chief
Southern California Operations
Office of Military Facilities
Department of Toxic Substances Control

Date: _____

Mr. Gerard Thibeault
Executive Officer
Regional Water Quality Control Board Santa Ana Region

Date: 23 MAY 2003

Mr. F. Andrew Piszkin
Base Realignment and Closure Environmental Coordinator
Former Marine Corps Air Station El Toro

Date: _____

Ms. Deborah Jordan, Chief
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United States Environmental Protection Agency, Region 9

Date: May 28, 2003

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Date: _____

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G. J. Thibeault

Date: 6/2/03

Mr. Gerard Thibeault
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8.0 References

Bechtel National, Inc (BNI) 1997a. *Draft Final Phase II Remedial Investigation Report, OU-3A Sites, Marine Corps Air Station, El Toro, California.* San Diego, California. March.

——— 1997b. *Draft Phase II Feasibility Study, OU-3A Sites, Marine Corps Air Station, El Toro, California.* San Diego, California. July.

Earth Tech 2000. *Memorandum, Proposed Reevaluation of Risk, Site 11.* Honolulu. October.

——— 2003. *Technical Memorandum, Reevaluation of Risk, IRP Sites 8, 11, and 12. Marine Corps Air Station, El Toro, California.* Honolulu, Hawaii. February.

Jacobs Engineering Group, Inc. (JEG). 1993. *Marine Corps Air Station El Toro: Installation Restoration Program, Phase I Remedial Investigation, Draft Technical Memorandum.*

OHM/IT Group 1999. Analytical and Location Survey Data Package, IRP Sites 8, 11, and 12. Irvine, California. May.

U.S. Department of the Navy (DON) 1999a. *Draft Final Record of Decision, Operable Unit 3A, Site 11, Marine Corps Air Station, El Toro, California.* Southwest Division Naval Facilities Engineering Command (SWDIV). San Diego, California. September.

——— 1999b. *Draft Record of Decision, Operable Unit 3A, Sites 8, 11, and 12, Marine Corps Air Station, El Toro, California.* Southwest Division Naval Facilities Engineering Command (SWDIV). San Diego, California. June.

U. S. Environmental Protection Agency (EPA). 1992. *Supplemental Guidance to RAGS: Calculating the Concentration Term.* Office of Solid Waste and Emergency Response. Publication 9285.7-081. Washington DC. May.

———. 1999. *A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents.* EPA 540-R-98-031. July.

———. 2000. *Region 9 Preliminary Remediation Goal (PRG) Tables.* http://www.epa.gov/region09/waste/sfund/prg/. San Francisco. November.

Tables and Figures

Table1-1: Comparison of Risk Assessment Parameters

Parameter	Unit	Value			
		EPA Region 9 Default		Phase II RI	
		1999		1997	
		Res.	Ind.	Res.	Ind.
Exposure- Soil Dermal Contact					
Adherence Factor					
Adult	mg/cm^2	**0.07**	**0.2**	1	1
Child		**0.2**	-	1	-
Exposed Skin Area					
Adult	cm^2	**5700**	**3300**	5000	5000
Child		**2800**	-	2000	-
Dermal Absorption Factor (PCBs/organics)	unitless	**0.14/0.1**		0.15	
Exposure Frequency	Days/year	**350**	**250**	350	250
Toxicity					
Cancer Slope Factor (PCBs)	mg/kg-day	**2.0**		7.7	

Notes:
mg/cm^2 = milligrams per square centimeter
cm^2 = square centimeter
mg/kg-day = milligrams per kilogram per day
EPA = United Stated Environmental Protection Agency
Ind. = Industrial
PCBs = polychlorinated biphenyls
Res. = Residential
RI = remedial investigation
Exposure factors and toxicity criteria in **bold** indicate the values used in the risk reevaluation (Earth Tech 2003)

Table 1-2: Site 11 Risk Reevaluation Summary-Updated Versus Previous Risk Estimation

Unit Number	Risk Evaluation Reference	EXCESS LIFETIME CANCER RISK		NONCANCER RISK (Hazard Index)	
		Residential Scenario (0 to 10 feet bgs) Cal-EPA[a, b]	Residential Scenario Risk Drivers[c]	Residential Scenario (0 to 10 feet bgs)[b, d]	Residential Scenario Risk Drivers[c]
1	*Record of Decision (DON 1999a)*	*9.1×10^{-5}*	*Aroclor 1260 (99%)*	*4.5*	*Aroclor 1260 (99%)*
	Reevaluation of Risk (Earth Tech 2003)	9.8×10^{-6}	Aroclor 1260 (99%)	2.5	Aroclor 1260 (> 99%)
2	*Record of Decision (DON 1999a)*	*5.9×10^{-6}*	*Aroclor 1260 (99%)*	*0.3*	—
	Reevaluation of Risk (Earth Tech 2003)	4.6×10^{-6}	Aroclor 1260 (91%) Dieldrin (7%) Heptachlor (1%)	1.1	Aroclor 1260 (99%)
3	*Record of Decision (DON 1999a)*	*3.0×10^{-7}*	—	*0.017*	—
	Reevaluation of Risk (Earth Tech 2003)	1.2×10^{-7}	—	0.010	—

Notes:

a cancer risk results shown are for the hypothetical residential adult; adult cancer risks are for a total of 30 years, 6 years as a child and 24 years as an adult

b To facilitate a comparable evaluation of the risk between this reevaluation and the previous HHRA (BNI 1997), the number of significant figures reported in this risk reevaluation was maintained consistent with that of the RI study.

c as determined by human-health risk assessment, number in parentheses is the compound's contribution to the total risk

d systemic toxicity results shown are for the hypothetical resident child; child noncancer risks are higher than the adult noncancer risks

_ indicates that there is no excess risk and therefore there are no risk drivers

Italics indicate previous Remedial Investigation risk evaluation (BNI 1997)

bgs - below ground surface

Cal-EPA - California Environmental Protection Agency

Table 1-3: Summary of Target Cleanup Goals for Primary COPCs, IRP Site 11

Chemical	Calculated RBC based on the revised risk assessment (mg/kg)	Calculated RBC based on the previous (Phase II RI) risk assessment (mg/kg)	**Selected Target Cleanup Goal (mg/kg)**
4,4'-DDD	2.95E+00	1.25E+00	2.95E+00
4,4'-DDE	2.09E+00	8.81E-01	2.09E+00
4,4'-DDT	2.09E+00	8.81E-01	2.09E+00
alpha-Chlordane	2.03E+00	2.30E-01	2.03E+00
Aroclor 1260	2.88E-01	3.08E-02	2.88E-01
beta-BHC	3.93E-01	2.30E-01	3.93E-01
Endosulfan II	4.12E+02	2.34E+02	4.12E+02
Endosulfan sulfate	4.12E+02	2.34E+02	4.12E+02
Endrin aldehyde	2.06E+01	1.17E+01	2.06E+01
Heptachlor	1.58E-01	6.66E+01	1.58E-01

Notes:

RBC = Risk Based Concentration

4,4'-DDD = 4-4'-dichlorodiphenyldichloroethane

4,4'-DDE = 4-4'-dichlorodiphenyldichloroethylene

4,4'-DDT = 4-4'-dichlorodiphenyltrichloroethane

BHC = Benzene Hexachloride

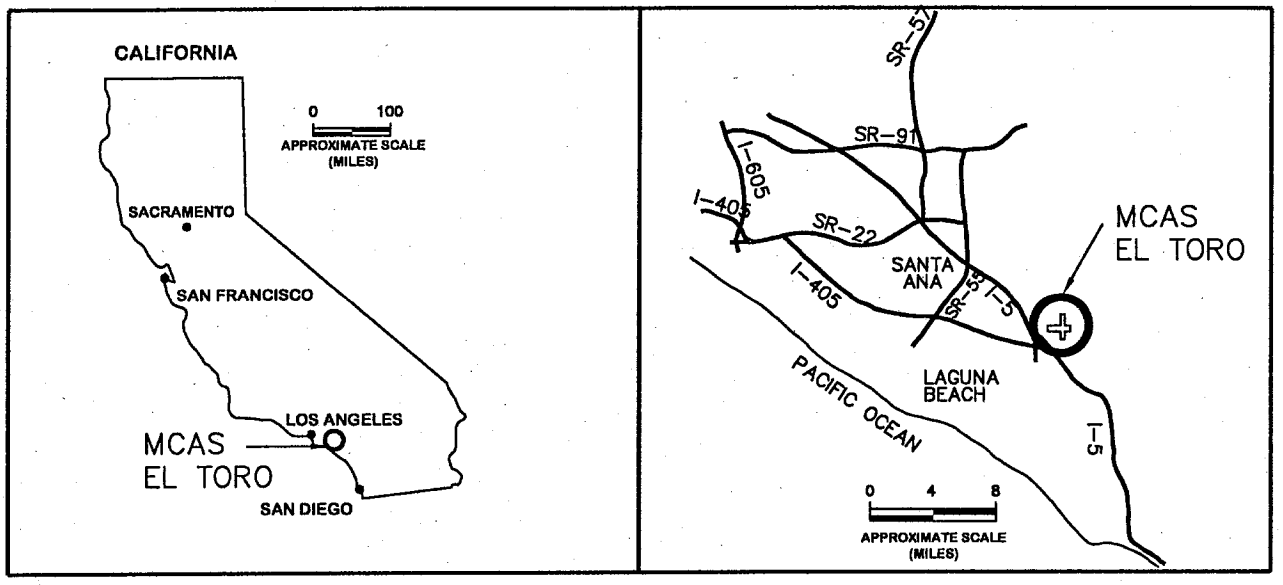
Table 1-4: Side-By-Side Comparison of the Remedy presented in the ROD and the Proposed Remedy in the ESD

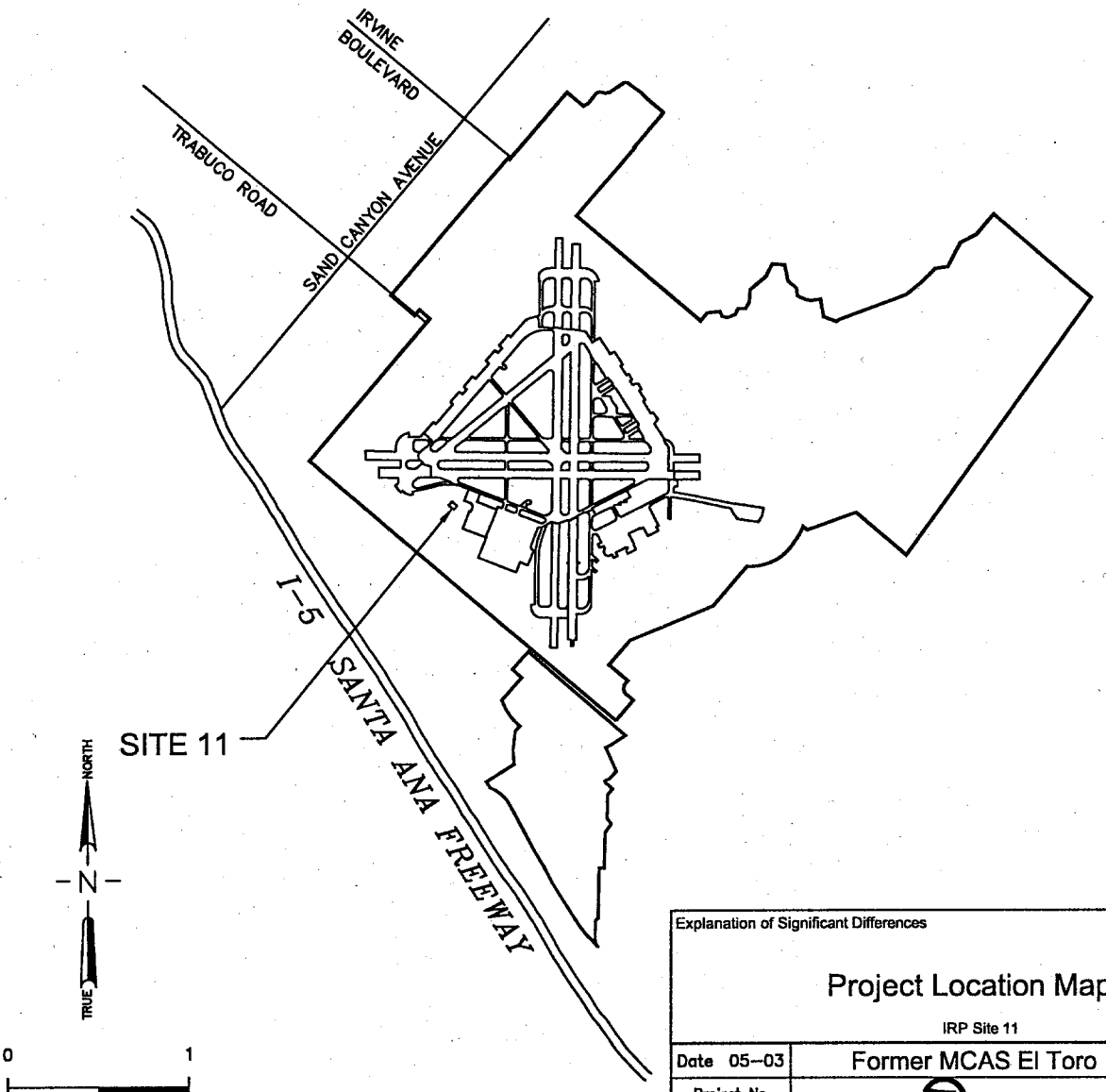
Criteria	Remedy Presented in the ROD	Proposed Remedy in the ESD	Remarks	Significant Differences from the ROD
Chemicals of Concern (COCs)	The chemicals of concern for which risk based concentrations (RBCs) are defined in the selected remedy in the ROD include 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, alpha-chlordane, Aroclor 1260, beta-BHC, endosulfan II, endosulfan sulfate, endrin aldehyde, and heptachlor.	The chemicals of concern for which RBCs are defined in the ESD include 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, alpha-chlordane, Aroclor 1260, beta-BHC, endosulfan II, endosulfan sulfate, endrin aldehyde, and heptachlor.	The list of COCs for the selected remedy in the ROD and proposed remedy in the ESD remains the same.	No
Risk-based concentrations	RBCs for the site-specific chemicals of concern (COCs) were calculated based on the Phase II RI/FS risk assessment (BNI 1997) and are shown in Table 1-3.	RBCs for the site-specific COCs were calculated using the methodology presented in the FS along with the updated toxicity and exposure parameters shown in Table 1-3.	RBCs for the site-specific COCs presented in the ESD are generally higher than those presented in the ROD, except for heptachlor.	Yes
Overall extent of removal of PCB-contaminated soil and estimated cost	PCB-contaminated soil throughout the area of Units 1 and 2 will be excavated to a depth of approximately 2 feet bgs (up to 6 feet bgs in a small area of Unit 2).	PCB contaminated soil throughout the area of Unit 1 and 2 will be excavated to a depth of approximately 2 feet bgs (up to 6 feet bgs in a small area of Unit 2).	There is no change in the expected overall extent of removal of PCB-contaminated soil between remedy presented in the ROD and the proposed remedy in the ESD. Since the overall extent of the excavation of contaminated soil at Units 1 and 2 of Site 11 as presented in the ROD and as proposed in the ESD remains the same, therefore there are no significant changes in the estimated costs.	No
Characterization and off-Station disposal of contaminated soil	Excavated soil will be characterized and managed in compliance with Title 22 California Code of Regulations requirements for RCRA and non-RCRA hazardous waste.	Excavated soil will be characterized and managed in compliance with Title 22 California Code of Regulations requirements for RCRA and non-RCRA hazardous waste.	The characterization and off-Station disposal component of the proposed remedy in this ESD is identical to the original remedy presented in the ROD.	No
Confirmation sampling	Once the areas have been excavated to the planned depths, soil sampling will be performed to confirm that all of the contaminated soil exceeding RBCs (based on the Phase II risk assessment) for the	Once the areas have been excavated to the planned depths, soil sampling will be performed to confirm that the contaminated soil exceeding RBCs (based on the risk reevaluation) for the chemicals of concern (Table 1-3) at each area has been removed. In addition, following	The rationale for confirmation sampling is the same. However, the results of the confirmatory sampling will be compared against the RBCs calculated based on the risk reevaluation (Table 1-3), and will also be used to calculate the	Yes

Table 1-4: Side-By-Side Comparison of the Remedy presented in the ROD and the Proposed Remedy in the ESD (Continued)

Criteria	Remedy Presented in the ROD	Proposed Remedy in the ESD	Remarks	Significant Differences from the ROD
Confirmation sampling	chemicals of concern (Table 1-3) at each area has been removed.	removal of the contaminated soil, confirmation sampling results will be used to calculate the cumulative residual risk at the site.	cumulative residual risk at the site.	Yes
Backfilling and compaction	Upon completion of the removal operations, the excavated areas will be sampled to ensure that contamination has been removed and backfilled and compacted using comparable volume of the clean fill material to return the area to the original grade. Soil backfill is expected to be obtained form an appropriate on-Station or off-Station source.	Upon completion of the removal operations, the excavated areas will be sampled to ensure that contamination has been removed and backfilled and compacted using comparable volume of the clean fill material to return the area to the original grade. Soil backfill is expected to be obtained form an appropriate on-Station or off-Station source.	The backfilling and compaction component of the proposed remedy in this ESD is identical to the original remedy presented in the ROD.	No
Level of Protection	The selected remedy presented in the ROD consists of removal of contaminants at Site 11 Units 1 and 2, resulting in residual levels that equate to an excess cancer risk of approximately $1x10^{-6}$ and a noncancer hazard index of approximately 1 for the residential scenario.	The proposed remedy in the ESD consists of removal of contaminants at Site 11 Units 1 and 2 resulting the residual levels that equate to an excess cancer risk of approximately 10^{-6} and a noncancer hazard index of approximately 1 for the residential scenario.	The changed remedy achieves the same level of protection to human health (i.e. cancer risk of 10^{-6}, and noncancer risk of 1) as the selected remedy documented in the ROD	No
Regulatory Compliance	The selected remedy presented in the ROD complies with all ARARs identified and documented in the ROD.	The proposed remedy in the ESD will comply with all ARARs identified and documented in the ROD.	The remedial action objectives will be met and the proposed remedy in the ESD will comply with the ARARs identified and documented in the ROD.	No
Cleanup Approach and Technology	The cleanup approach for the remedy presented in the ROD consists of excavation of contaminated soil at Site 11 Units 1 and 2 and disposal at an appropriate off-Station facility.	The cleanup approach for the proposed remedy in the ESD consists of excavation of contaminated soil at Site 11 Units 1 and 2 and disposal at an appropriate off-Station disposal facility.	There is no change in the cleanup approach and the technology used between the remedy selected in the ROD and the proposed remedy in the ESD.	No

Notes:
4,4'-DDD = 4-4'-dichlorodiphenyldichloroethane
4,4'-DDE = 4-4'-dichlorodiphenyldichloroethylene
4,4'-DDT = 4-4'-dichlorodiphenyltrichloroethane
ROD = Record of Decision
ESD = Explanation of Significant Differences
PCB = polychlorinated biphenyl





Explanation of Significant Differences		Final
Project Location Map IRP Site 11		
Date 05-03	Former MCAS El Toro	Figure 1-1
Project No. 29307	EARTH TECH A tyco INTERNATIONAL LTD. COMPANY	

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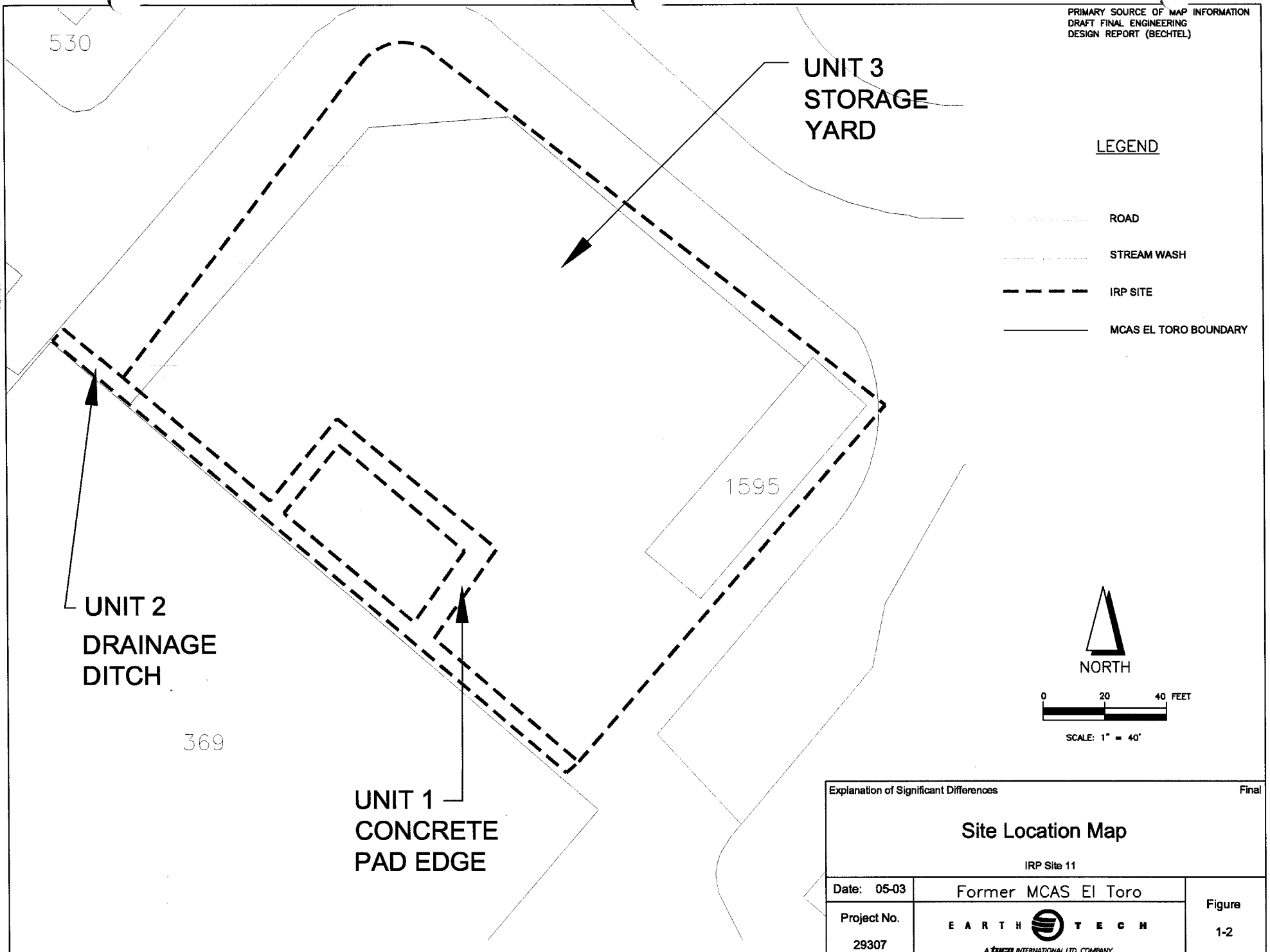
M:\Projects\29307(CTO-88)\Site 11\Documents\ESD\Draft\Figure1-2.dwg, 5/23/03

PRIMARY SOURCE OF MAP INFORMATION
DRAFT FINAL ENGINEERING
DESIGN REPORT (BECHTEL)



Explanation of Significant Differences — Final

Site Location Map

IRP Site 11

Date: 05-03	Former MCAS El Toro	Figure 1-2
Project No. 29307	EARTH TECH, A tyco INTERNATIONAL LTD. COMPANY	

Appendix A

Responses to Regulatory Comments

Document Title:

(1) Draft Explanation of Significant Differences (ESD), Installation Restoration Program (IRP) Site 11, Former Marine Corps Air Station (MCAS), El Toro, California, February 2003.

Reviewer: Nicole Moutoux, Project Manager, Federal Facilities Cleanup Branch, United States Environmental Protection Agency; dated April 8, 2003

Comment No.	Section/ Page No.	Comment	Response
General Comments			
1.		In order to more clearly describe the changes made to the remedy, please provide a side-by-side comparison of the original and proposed remedy components as suggested in the EPA guidance "A Guide To Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents," dated July, 1999.	A table (Table 1-4) presenting a side-by-side comparison of the original and proposed remedy components has been added to the ESD.
Specific Comments			
1.	Pg 1, Introduction	The bullets used to describe what the ESD addresses should include a bullet for the additional sampling data that has been included in the risk reevaluation since the draft final ROD was issued.	A sentence explaining that additional sampling was conducted and the results were used in the risk reevaluation, has been included.
2.	Table 1-3, Summary of Target Cleanup Goals for Primary COPCs, IRP Site 11.	Please provide all risk assessment parameters, toxicity values and equations used to calculate the "Selected Target Cleanup Goal".	A comparison of risk assessment parameters used in the Phase II RI and the risk reevaluation is provided in Table 1-1. In addition, references to the risk reevaluation report, the FS and the ROD have been made in the ESD wherever appropriate. The risk based concentrations (RBCs) for different COCs at Site 11 were calculated using following equation: $$RBC = \frac{EPC}{Excess\ Cancer\ Risk\ or\ Hazard\ Quotient} \times (TR\ or\ THQ)$$ where: RBC = risk based concentration EPC = exposure point concentration TR = the target incremental life time cancer risk of 10^{-6} THQ = target hazard quotient of 1

Document Title:

(1) Draft Explanation of Significant Differences (ESD), Installation Restoration Program (IRP) Site 11, Former Marine Corps Air Station (MCAS), El Toro, California, February 2003.

Reviewer: Triss M. Chesney, Remedial Project Manager, Office of Military Facilities, Department of Toxic Substances Control; dated April 7, 2003

Comment No.	Section/ Page No.	Comment	Response
General Comments			
1.		As recommended in A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents (EPA 540-R-98-031) (United States Environmental Protection Agency, July 1999), additional changes resulting from modifications to the remedy should also be provided. A side-by-side comparison of the remedy components described in Section 9 of the ROD and those of the proposed remedy would be helpful. In particular, this comparison should include and address the following remedy components described in the ROD. • PCB-contaminated soil throughout the area of Units 1 and 2 will be excavated to a depth of approximately 2 feet below ground surface (bgs) (up to 6 feet bgs in a small area of Unit 2). • Approximately 233 bank cubic yards from Units 1 and 2 will be excavated. • Cost estimate for excavation and off-site disposal. • Confirmation soil sampling, including chemical analyses. • Excavation, characterization and disposal of contaminated soil at an appropriate off-Station facility. • Backfill and compaction of the excavations using clean fill material to return the area to original grade.	A table (Table 1-4) presenting a side-by-side comparison of the original remedy presented in the ROD and the proposed remedy in the ESD has been added.
Specific Comments			
1.	Section 1.0, Introduction, Page 1	The second paragraph lists the items that are addressed in the ESD. Both the first and third bulleted items address changes to cleanup goals based on updated toxicity criteria and slope factors. Please revise to one item. It is also recommended that an item for additional sampling results be included.	Revisions have been made as suggested.
2.	Section 3.0, Basis for the Document, Page 3	The first partial paragraph ends, "Subsequently, a separate Draft Final ROD was issued for Site 11 in September 1999 (Don 1999a)." For clarification, please add that the ROD was also signed.	Revisions have been made as suggested.

Document Title:

(1) Draft Explanation of Significant Differences (ESD), Installation Restoration Program (IRP) Site 11, Former Marine Corps Air Station (MCAS), El Toro, California, February 2003.

Reviewer: Triss M. Chesney, Remedial Project Manager, Office of Military Facilities, Department of Toxic Substances Control; dated April 7, 2003

Comment No.	Section/ Page No.	Comment	Response
3.	Section 3.1, Human Health Risk Assessment Summary, Page 3	The fourth paragraph states, "The recalculated risks for the various units at Site 11 were in general lower than risk estimates presented in the RI report." However, the non-cancer risk (hazard index) for Unit 2 increased from 0.3 to 1.1 (Table 1-2, Site 11 Risk Reevaluation Summary). Please include an explanation for this increase.	The following explanation of the increase in non-cancer risk has been added. The recalculated risks for the various units at Site 11 were in general lower than risk estimates presented in the RI report except for the noncancer risk for residential scenario in case of Unit 2. The noncancer risk for the residential scenario at Unit 2 increased during the risk reevaluation from 0.3, as presented in the Phase II RI, to 1.1. This was due to an increase in the exposure point concentration (EPC) for Aroclor 1260 (main noncancer risk driver [99%]) from 0.179 to 1.2 mg/kg. This increase in the EPC was due to incorporation of additional data (May 1999 soil sampling data) in the risk reevaluation.
4.	Section 3.1, Human Health Risk Assessment Summary, Page 4	The last sentence in this section states, "In addition, following the removal of contaminated soil, confirmation sampling results will be used to calculated the cumulative residual risk for each unit using the updated slope factors." Since the evaluation of cumulative residual risk is another significant difference, it may be more appropriate to include in Section 4.0, Description of Significant Differences.	A sentence mentioning that the evaluation of cumulative residual risk at the site will be conducted following confirmation sampling, has been added to Section 4.0, Description of Significant Differences.
5.	Section 7.0, Public Participation, Page 4	This section states that the ESD will be available for public review. Although not required, DTSC recommended that the ESD be made available to public comment period due to the concern expressed by the Local Redevelopment Authority and Restoration Advisory Board when the Remedial Action Strategy for Site 11 was issued in December; the cleanup goals presented in the strategy differed from those documented in the ROD. Additionally, please check the spelling in the second paragraph	It is the DON's opinion that the notification in a local newspaper and a presentation at the next RAB meeting provide adequate opportunity for members of public to voice any concerns.
6.	Table 1-1, Comparison of Risk Assessment Parameters	For clarification, please include an explanation of acronyms used in the table.	An explanation of acronyms has been added.

Document Title:

(1) Draft Explanation of Significant Differences (ESD), Installation Restoration Program (IRP) Site 11, Former Marine Corps Air Station (MCAS), El Toro, California, February 2003.

Reviewer: John Broderick, Remedial Project Manager, Office of Military Facilities, Department of Toxic Substances Control; dated April 2, 2003

Comment No.	Section/ Page No.	Comment	Response
General Comments			
1.		We have no comments on this document.	Comment noted

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DOCUMENT TRANSMITTAL

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To: Remedial Project Manager
Naval Facilities Engineering Command
Southwest Division
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1230 Columbia Street, Suite 870
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DATE: May 23, 2003
CTO #: 068
LOCATION: MCAS, El Toro

FROM: Crispin G. Wanyoike

DESCRIPTION: Final Explanation of Significant Differences, Site 11, Transformer Storage Area, MCAS, El Toro

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5090
Ser 06CC.AP/1128
August 1, 2003

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Fellow Federal Facility Agreement (FFA) Representatives:

SUBJECT: FINAL EXPLANATION OF SIGNIFICANT DIFFERENCES (ESD) SIGNATURE PAGES, OPERABLE UNIT (OU)-3A, SITE 11, TRANSFORMER STORAGE YARD, FORMER MARINE CORPS AIR STATION (MCAS) EL TORO, CALIFORNIA

Submitted for your agency's official records is a complete set of signature pages finalizing the ESD, OU-3A, Site 11, Transformer Storage Yard, Former MCAS El Toro, California. The remedy, as changed pursuant to this ESD, complies with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), remains protective of human health and the environment, and complies with applicable or relevant and appropriate Federal and State requirements identified in the finalized *OU-3A (Site 11) Draft Final Record of Decision* (September 1999).

This ESD advances the Site 11 CERCLA program and provides a basis for the remedial design and remediation of the site.

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August 1, 2003

Your continued support in this program is appreciated. Should you have questions, please contact Mr. Karnig Ohannessian, Remedial Project Manager, at (619) 532-0796 or me at (619) 532-0784.

Sincerely,

F. ANDREW PISZKIN
Base Realignment and Closure
Environmental Coordinator
By direction of the Commander

Enclosure: 1. Explanation of Significant Differences signature pages (3), OU-3A, Installation Restoration Program (IRP) Site 11, MCAS El Toro, California – Dated May 2003

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